

CLAIMS

1-10. (cancelled)

11. (previously presented) A method for reducing color moiré in digital images comprising the steps of:

transforming the color signals of the image from an initial color space into a luminance channel and into chrominance channels of a luminance/chrominance color space in which the luminance channel remains free of color signals that are transformed into the chrominance channels;

performing a bandpass splitting in the luminance and chrominance channels for intersecting the frequencies of the luminance and chrominance channels into several underfrequency ranges in the same manner;

performing an energy a comparison of energy values, image point pixel by image point pixel, between the luminance channel and the chrominance channels that is limited to first selected frequencies chosen from said underfrequency ranges in order to determine detect pixels in which color moiré is present when the energy value in the chrominance channel is greater than in the luminance channel;

making a correction of the energy values of the pixels, in which color moiré is present detected, in at least one of the chrominance channels, which wherein the correction is limited to second selected frequencies chosen from one of said underfrequency ranges; and

transforming the corrected color signals of the chrominance channels and the color signals of the luminance channel back into the initial color space.

12. (previously presented) The method according to claim 11, wherein the RGB color space, where R is red, G is green and B is blue, serves as initial color space from which the transformation into the luminance/chrominance color space is carried out in that the green color signal is transferred unchanged to the luminance channel, and the chrominance channels r and b are formed by

$$r = \frac{R}{R+G+B} \text{ and } b = \frac{B}{R+G+B}.$$

13. (previously presented) The method according to claim 12, wherein the frequencies present in the luminance channel and in the chrominance channels are split into underfrequency ranges in each of the channels, a first underfrequency range comprising high frequencies, a second underfrequency range comprising middle frequencies, and a third underfrequency range comprising low frequencies.
14. (previously presented) The method according to claim 13, wherein a relative energy comparison measurement EVM which is determined from the ratio of the energy of the middle-frequency second underfrequency range to the sum of the energies of the middle-frequency second underfrequency range and low-frequency third underfrequency range is used for the image point energy comparison.
15. (previously presented) The method according to claim 14, wherein the correction of the energy values of the pixels in which color moiré is present is limited, as a reduction of energy values, to the middle-frequency second underfrequency range in at least one chrominance channel.
16. (previously presented) The method according to claim 15, wherein an attenuation factor α that is linked to the energy comparison measurement serves to reduce energy values.
17. (previously presented) The method according to claim 16, wherein the attenuation factor α corresponds to the energy comparison measurement of the luminance channel.
18. (previously presented) The method according to claim 15, wherein an empirically determined constant serves as attenuation factor α for the energy value reduction.
19. (previously presented) The method according to claim 16, wherein the attenuation factor α corresponds to the product of the energy comparison measurement of the luminance channel and the low-frequency energy value of a chrominance channel.
20. (previously presented) The method for reducing color moiré in digital images, wherein the steps in claim 11 are applied multiple times.